

CLAIMS

1. An apparatus comprising:
a media including game content; and
a data protection portion that includes a file alteration checking portion, the file alteration checking portion protects the media from modification of the game content by determining whether the game content has been modified, and if the game content has been modified, then the installation of the game content within the apparatus fails.
2. The apparatus of claim 1, wherein the game content includes music that can be played on the game console.
3. The apparatus of claim 1, wherein the game content includes audio that can be played on the game console.
4. The apparatus of claim 1, wherein the game content includes non-game related material that can be played on the game console.
5. The apparatus of claim 1, wherein the game content includes game related material that can be played on the game console.
6. The apparatus of claim 1, wherein the media includes a removable media that is removable from the apparatus.

1 7. The apparatus of claim 1, wherein the media includes a removable
2 media that is removable from the apparatus, and wherein the removable
3 media includes an optical disk.

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5 8. The apparatus of claim 1, wherein the media includes a removable
6 media that is removable from the apparatus, wherein the removable media
7 includes a digital video disk.

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9 9. The apparatus of claim 1, wherein the apparatus includes a game
10 console.

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12 10. The apparatus of claim 1, wherein the data protection portion includes
13 a media type checking portion for checking whether the type of the media
14 is as expected for media that has not been copied.

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16 11. The apparatus of claim 1, wherein the data protection portion includes
17 a media type checking portion for checking whether the type of the media
18 is as expected for media that has not been copied, and wherein the media
19 type checking portion reduces the possibility of copying the game content
20 from a pressed disk to an end user writable disk.

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22 12. The apparatus of claim 1, wherein the data protection portion checks
23 the entire file to ensure that the media has not been invalidated
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1 13. The apparatus of claim 1, wherein the data protection portion includes
2 a file signature checking portion for checking whether the file signature is
3 as expected for media that has not been modified.

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5 14. The apparatus of claim 1, wherein the data protection portion includes
6 a file signature checking portion for checking whether the file signature is
7 as expected for media that has not been modified, and wherein a signature
8 check is performed on files as they are installed.

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10 15. The apparatus of claim 1, wherein the data protection portion checks
11 the contents of a file as it is opened.

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13 16. The apparatus of claim 1, wherein the file alteration checking portion
14 allows sector level validation rather than file level validation.

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16 17. The apparatus of claim 1, wherein the game content is stored in a
17 game console specific format.

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19 18. The apparatus of claim 1, wherein the media content includes non-
20 game content.

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22 19. The apparatus of claim 1, wherein the media content includes non-
23 game content, and wherein the non-game content is stored in a non-game
24 console specific format.

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1 20. A method comprising:

2 attempting to install a file, wherein the attempting to install
3 the file includes comparing an actual signature of a table of
4 contents from a media with an expected signature of the table of
5 contents; and

6 attempting to read a cluster of data from the media, wherein
7 the attempting to read the cluster of data includes calculating an
8 actual signature, and comparing the actual signature with an
9 expected signature found in the table of contents for every cluster
10 of data read.

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12 21. The method of claim 20, wherein the file exists on removable media.

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14 22. The method of game 20, wherein the method is run on a game
15 console.

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17 23. The method of claim 20, wherein the data is stored in a non-game
18 console specific format.

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20 24. The method of claim 20, wherein method is a file alteration check.

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22 25. The method of claim 20, that interfaces with a media containing game
23 content.

1 26. The method of claim 20, that interfaces with a media containing non-
2 game content.

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4 27. The method of claim 20, wherein the data is stored in a game console
5 specific format.

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7 28. A method comprising:
8 obtaining game content from a media; and
9 protecting the game content from modification, using a file alteration
10 checking portion that, by determining whether the game content has been
11 modified, and if the game content has been modified, then failing to allow
12 the installation of the game content.

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14 29. A computer readable memory having computer readable instructions
15 that when executed by a processor causes the processor to:

16 attempt to install a file, wherein the attempting to install the
17 file includes comparing an actual signature of a table of contents
18 from a media with an expected signature of the table of contents;
19 and

20 attempt to read a cluster of data from the media, wherein the
21 attempting to read the cluster of data includes, for every cluster of
22 data read, calculating an actual signature, and comparing the actual
23 signature with an expected signature found in the table of contents
24 for every cluster of data read.
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1 30. A method comprising:

2 attempting to install a file, wherein the attempting to install the file
3 includes:

4 acquiring an expected signature for a table of contents from
5 a media,

6 comparing an actual signature of the table of contents with
7 the expected signature of the table of contents,

8 if the expected signature of the table of contents does not
9 match the actual signature of the table of contents, then failing to
10 install the file, and

11 if the expected signature of the table of contents does match
12 the actual signature of the table of contents, then installing the file
13 is allowed to continue; and

14 attempting to read a cluster of data from the media, wherein the
15 attempting to read the cluster of data includes:

16 for every cluster of data read, calculating an actual signature,
17 comparing the actual signature with an expected signature
18 found in the table of contents for every cluster of data read,

19 if the actual signature for the cluster of data does not match
20 the expected signature for the cluster of data, then failing to read
21 the clusters of data from the media, and

22 if the actual signature for the cluster of data does match the
23 expected signature for the cluster of data, then reading the clusters
24 of data from the media.
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1 31. A method comprising:

2 locating an expected control data signature from a standard
3 executable;

4 locating control data from a standard executable and computing a
5 computed control data signature in response to the control data;

6 determining whether the computed control data signature matches the
7 expected control data signature;

8 reading expected file data block signatures from the control data;

9 loading a file data block, and computing a computed file data block
10 signature in response to the file data block; and

11 determining whether the computed file data block signature matches
12 the expected file data block signature.

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1 32. The method of claim 31, further comprising failing to install game
2 content in a game console if the computed control data signature does not
3 match the expected control data signature.

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5 33. The method of claim 31, further comprising failing to install game
6 content in a game console if the computed control data signature matches
7 the expected control data signature.

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9 34. The method of claim 31, further comprising launching the game
10 content in a game console if the computed control data signature matches
11 the expected control data signature.

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13 35. The method of claim 31, further comprising launching the game
14 content in a game console if the computed file data block signature
15 matches the expected file data block signature.

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17 36. A computer readable memory having computer readable instructions
18 that when executed on a processor, causes the processor to protect media
19 associated with game content that can run on a game console from
20 modifying the game content by determining whether the game content has
21 been modified, wherein if the game content has been modified, then the
22 installation of the game content within the game console fails.